



April 13, 2016

Eric Lovell, President  
Uroboros Glass  
2139 N. Kirby Ave.  
Portland, OR 97227

Re: Applicability of 40 CFR Part 63 Subpart SSSSSS

Eric,

DEQ recently requested clarification and interpretation from EPA on the applicability of the National Emissions Standards of Hazardous Air Pollutants (NESHAP) for Glass Manufacturing Area Sources, 40 CFR, Part 63, Subpart SSSSSS to facilities with equipment and operations comparable to those at Uroboros Glass.

DEQ requested this clarification as a result of recent investigations and new understanding and information about your operations. Subpart SSSSSS controls air emissions from glass manufacturing plants that are area sources that emit hazardous air pollutant metals (arsenic, cadmium, chromium, lead, manganese, and nickel) and which meet the relevant applicability criteria outlined in the rule. DEQ requested clarification from EPA to ensure that the appropriate regulations are being applied to your facility.

### Is Uroboros subject?

The relevant applicability criteria in the rule state that a facility is subject to the subpart if they are an “*area source of hazardous air pollutant (HAP) emissions*” and meet the criteria detailed in 40 CFR §63.11448. There are three criteria in assessing applicability of the subpart, the two most relevant to Uroboros are:

1. §63.11448(a) *A glass manufacturing facility is a plant site that manufactures flat glass ... by melting a mixture of raw materials ... to produce molten glass and form the molten glass into sheets, containers, or other shapes.*
2. §63.11448(c) *[A] glass manufacturing facility [that] uses one or more continuous furnaces to produce glass that contains compounds of one or more glass manufacturing metal HAP ... as raw materials in a glass manufacturing batch formulation.*

Additionally, and of relevance to your facility and DEQ’s request for clarification, Subpart SSSSSS defines some of the critical terms used in determining applicability. Specifically, in §63.11459 the subpart defines that: “*continuous furnace means a glass manufacturing furnace that operates continuously except during periods of maintenance, malfunction, control device installation, reconstruction, or rebuilding*”.

Under the definitions of the subpart Uroboros meets the applicability test under §63.11448(a). Uroboros manufactures flat glass by melting a mixture of raw materials (as defined in §63.11459) and forms the molten glass into sheets, containers, or other shapes. That Uroboros meets this definition is unambiguous.

In assessing the applicability based on §63.11448(c) DEQ had previously determined that the subpart did not apply to Uroboros because the regulation applies only to continuous furnaces and Uroboros operates only periodic furnaces. EPA clarified, in part, that Uroboros operates “*refractory furnaces that melt glass in a batch process but are **continuously** operated*” (emphasis added) and that, though glass product is produced in batches, “*natural gas is fired and the furnace stays at a high temperature at all times, with only the exemptions outlined in the definition of ‘continuous furnace’ in Subpart SSSSSS*”.

Based on EPA’s clarification and other information about Uroboros’s operations, DEQ has revised its previous interpretation and has determined that Subpart SSSSSS applies to Uroboros.

### **Which furnaces are subject to requirements in Subpart SSSSSS?**

As part of this letter DEQ is requesting information to identify which furnaces at Uroboros are subject to the provisions; that request is detailed in following sections. Based on the current information DEQ has regarding the operations at Uroboros, DEQ is asserting that some furnaces at Uroboros are subject to the provisions of the subpart. In 40 CFR §63.11449, the subpart is clear that “*existing or new affected*” furnaces located at a glass manufacturing facility are required to comply with the provisions of the subpart if they meet the criteria below:

1. §63.11449(a)(1) *The furnace is a continuous furnace, as defined in §63.11459.*
2. §63.11449(a)(2) *The furnace is charged with compounds of one or more glass manufacturing metal HAP as raw materials.*
3. §63.11449(a)(3) *The furnace is used to produce glass, which contains one or more of the glass manufacturing metal HAP as raw materials, at a rate of at least 45 Mg/yr (50 tpy).*

The primary production furnaces at Uroboros meet the definition of continuous furnace, as clarified by EPA and discussed in the previous section. In assessing (2) and (3) above, DEQ has confirmed through multiple inspections and a review of the records provided by Uroboros that many of the furnaces are “*charged with compounds of ... glass manufacturing HAP(s) as raw materials*”; and that production from one or more of those furnaces has met or exceeded a rate of at least 50 tons per year (tpy).

40 CFR §63.11449 goes on to describe which parts of the plant are covered by the subpart. DEQ has detailed those provisions and our responses below:

*§63.11449 (b) A furnace that is a research and development process unit, as defined in §63.11459, is not an affected furnace under this subpart.*

Research and development, as applied in subpart SSSSSS, means a “*unit whose purpose is to conduct research and development for new processes and products and is not engaged in the*

*manufacture of products for commercial sale, except in a de minimis manner”. The furnaces at Uroboros are engaged in production to create saleable products as evidenced by records, comments and published materials.*

*§63.11449 (c) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before September 20, 2007.*

*§63.11449 (d) An affected source is a new source if you commenced construction or reconstruction of the affected source after September 20, 2007.*

DEQ does not have complete records detailing comprehensively which furnaces at Uroboros commenced construction or reconstruction on or before September 20, 2007; this information is needed to determine which of the provisions of Subpart SSSSSS individual furnaces are subject to. DEQ will be requesting additional information to confirm which furnaces this condition is applicable to.

*§63.11449 (e) If you own or operate an area source subject to this subpart, you must obtain a permit under 40 CFR part 70 or 40 CFR part 71.*

This requirement of the subpart does not describe applicability criteria but instead outlines the obligations incumbent on an owner or operator of a subject source to obtain a Title V permit as required under either 40 CFR part 70 or 40 CFR part 71.

Based on the information DEQ has about your furnaces and operations, DEQ has concluded that you operate at least one furnace, and likely multiple furnaces, that meet the applicability criteria of the rule and so are subject to the requirements of the subpart.

### **Initial request for information**

Under Oregon Administrative Rule (OAR) 340-214-0110, DEQ is authorized to reasonably require any and all information for the purpose of regulating stationary sources. In accordance with this authority DEQ is requesting the following information be provided in a reasonably timely manner but no later than 5 p.m. on April 18<sup>th</sup>, 2016:

A list of furnaces at Uroboros, with unique identifiers for each furnace which identifies:

1. Each furnace which is currently used in a manner that it is charged with compounds of one or more glass manufacturing metal HAP as raw materials.
2. Annual (12 month period) glass production capacity for each furnace.
3. Annual (12 month period) glass production capacity for each furnace that uses metal HAPs as a raw ingredient.
4. Each furnace which has, at any point since December 26, 2007, been used in a manner that it was charged with compounds of one or more glass manufacturing metal HAP as raw materials.
5. The current glass production levels, in tons per year (12 month period) of each furnace that produces glass containing metal HAPs.
6. The glass production levels, in tons per year (12 month period) of each furnace that produced glass containing metal HAPs since December 2007.
7. Each furnace that Uroboros asserts meets the definition of research and development process unit, as defined in §63.11459.

8. The date of construction for each of the currently existing furnaces.
9. The date of reconstruction, if applicable, for each of the currently existing furnaces.

Reconstruction as defined in 40 CFR 63.2:

*Reconstruction [...] means the replacement of components of an affected or a previously nonaffected source to such an extent that:*

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and*
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.*

The above information will provide DEQ the information we need to specify what requirements apply to which furnaces and what Uroboros must do to be in full compliance.

As stated above, DEQ has revised our determination about the applicability of 40 CFR, Part 63, Subpart SSSSSS, in light of EPA's clarification, and has concluded that Uroboros is subject to the rule. We look forward to receiving the information requested above to determine which furnaces are subject to which requirements of the subpart; and to support actions moving forward which will ensure that Uroboros is in full compliance with all applicable regulations.

If you have any questions please contact me at 503-229-5160 or [ebersole.gerald@deq.state.or.us](mailto:ebersole.gerald@deq.state.or.us).

Sincerely,

Jerry Ebersole  
Interim Air Quality Manager  
Northwest Region

cc: Leah Feldon, Oregon DEQ (via email)  
Jaclyn Palermo, Oregon DEQ (via email)  
Nina DeConcini, Oregon DEQ (via email)  
Joni Hammond, Oregon DEQ (via email)  
Katie McClintock, US EPA (via email)  
Paul Koprowski, US EPA (via email)

Enclosures:

DEQ clarification request to EPA  
EPA response to DEQ